

TECHNICAL REPORT TITLE PAGE - ABSTRACT

1. REPORT NO.	2. REPORT DATE
MLR-86-4	December 2001

3. TITLE AND SUBTITLE	4. TYPE OF REPORT & PERIOD COVERED
Performance of Poly-Carb, Inc. Flexogrid Bridge Overlay System	Final Report, 7-86 to 12-91

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7. ACKNOWLEDGMENT OF COOPERATING ORGANIZATIONS/INDIVIDUALS

8. ABSTRACT

Intrusion of deicing materials and surface water into concrete bridge decks is a main contributor in deck reinforcing steel corrosion and concrete delamination. Salt, spread on bridge decks to melt ice, dissolves in water and permeates voids in the concrete deck. When the chloride content of the concrete in contact with reinforcing steel reaches a high enough concentration, the steel oxidizes. In Iowa, the method used to reduce bridge deck chloride penetration is the application of a low slump dense concrete overlay after the completion of all Class A and Class B floor repairs. A possible alternative to the use of dense concrete overlays, developed by Poly-Carb, Inc., is the MARK-163 FLEXOGRID Overlay System. FLEXOGRID is a two component system of epoxy and urethane which is applied on a bridge deck to a minimum thickness of ¼ inch. An aggregate mixture of silica quartz and aluminum oxide is broadcast onto the epoxy at a prescribed rate to provide deck protection and superior friction properties. The material is mixed on site and applied to the deck in a series of lifts (usually two) until the desired overlay thickness has been attained.

9. KEY WORDS	10. NO. OF PAGES
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